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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

AMIN, BHAVESH V

ART UNIT

PAPER NUMBER

3664

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,641	<b>Applicant(s)</b> STAMENKOVIC, MILAN	
	<b>Examiner</b> BHAVESH V. AMIN	<b>Art Unit</b> 3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21 - 43 is/are pending in the application.
- 4a) Of the above claim(s) 31 - 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21 - 30 & 41 - 43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," **"The disclosure defined by this invention," "The disclosure describes," etc.**

3. The abstract of the disclosure is objected to because “The inventive device for carrying out the method is also disclosed.” When applicant deletes the previous sentence the abstract will be less than 50 words, and thus correction is required. Correction is required. See MPEP § 608.01(b).

### ***Drawings***

4. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). **This was previously indicated in the non final and has not been corrected.**

5. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because no drawing have been submitted as previously indicated. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Objections***

6. Claim 42 is objected to because of the following informalities: The claim currently includes “transmitter/receiver” and is not clear as to what is being claimed. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 21 – 27 & 29** are rejected under 35 U.S.C. 102(b) as being anticipated by Sharp et al. US Patent 6,330,503 (hereafter referenced as Sharp).

Regarding **claim 21** where it is disclosed by Sharp to have a system which can handle objects as shown in Fig 6. Sharp also discloses their system being able to determine the location of the arm in relation to a reference system, column 7 lines 41 - 63 & column 8 lines 21 - 48. It is also disclosed by Sharp to have their system also be capable of determining where the arm is in relation to the reference system as described in column 8 lines 21 - 49 and shown in Fig 6 (GPS). Furthermore it is disclosed by Sharp to have remote transmitters which are placed away from the device to allow it to obtain an accurate position of its self, as is described by Sharp in column 9 lines 24 - 60. This is read upon by applicant's claim to, "A method of handling objects, the method comprising: moving at least one arm of a handling system for the handling of at least one object in space relative to a fixed reference system, wherein the locations of the arm are determined with reference to the fixed reference system; and locating a plurality of transmitters in the space around the handling system as field sources of at least one physical field for the location of the arm."

Regarding **claim 22** where it is further disclosed by Sharp in column 9 lines 32 – 59 to allow their system to also be able to determine the location of the arm using electromagnetic field to determine the position of the robot arm. This is read upon by applicant's claim to, "Wherein the at least one physical field is an acoustic, optical and/or electromagnetic field."

Regarding **claim 23** where it is disclosed by Sharp to have their system be able to use a GPS as shown in Fig 6 & 7 box labeled 110. Thus this is read upon by applicant's claim to, "wherein the at least one physical field includes a unidirectional locating system comprising a global positioning system (GPS) for the locating of the arm."

Regarding **claim 24** where it is disclosed by Sharp to have their system be capable of including a robot arm as shown in Fig 6 device labeled 104. This is read upon by applicant's claim to, "wherein a robot arm is used as the arm."

Regarding **claim 25** where it is disclosed by Sharp to have a system that can manipulate the object it picks up, as described in column 8 lines 33 - 48 and shown in Fig 6. This is read upon by applicant's claim to, "Wherein a gripping arm of a robot which takes up and/or moves the object is used as the arm."

Regarding **claim 26** where it is disclosed by Sharp in Fig 6 and explained in column 8 lines 21 – 48 as to how their system can manipulate the tool at the end of its arm. This is read upon by applicant's claim to, "an exchangeable tool or a tool fixedly provided at the arm is handled as the object in the space."

Regarding **claim 27** where it is described in Fig 6 and further explained in column 8 lines 33 – 48 as to how Sharp's system can figure out the orientation of the arm independent of the main body locating system. This is read upon by applicant's claim to, "the relative orientation of the tool to the arm is determined, in particular independently of the locating system."

Regarding **claim 29** where it is disclosed by Sharp in column 10 lines 35 – 39 as to how their system can use wireless communication to control the arm. This is read upon by applicant's claim to the, "control data of the tool are transmitted in a wireless manner, in particular inductively or by radio."

Regarding claim 41 where it is further disclosed by Sharp in column 5 lines 32 – 67 & column 6 lines 1 – 67 to have a "plurality of transmitters of fixed reference system are directly proximate to the arm and are electronically coupled to the control computer."

Regarding claim 42 where it is disclosed by Sharp in column 5 lines 32 – 67, column 6 lines 1 – 67 & column 9 lines 24 – 59, to have their device transmit information and receive information about location and positioning information from "marks" which are located around the machine. This information is used to help better locate the arm in relation to its current position.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claim 28** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp in further view of Hirai et al. US Patent 5,637,973 (hereafter referenced as Hirai).

Regarding **claim 28** where all the limitations of claim 26 are disclosed by Sharp, who does not specifically disclose the further limitation of, “the tool is supplied with energy in a wireless manner, in particular inductively or by means of an accumulator.”

This is disclosed by Hirai in their summary of their invention where it describes how their system can transmit power wirelessly between a transmitter and receiver. It would have been obvious to one of ordinary skill in the art at the time of invention to use one well know technique to improve another device, resulting in predictable results. (MPEP 2143).

11. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp in further view of McGee et al. US Patent 6,516,248 B2 (hereafter referenced as McGee).

Regarding **claim 30** where all the limitations of claim 21 are disclosed by Sharp who does not disclose the further limitation of, “Wherein the locating system is calibrated by self-calibration.” This is disclosed by McGee in their summary of their invention where they describe how their system can self calibrate. This is read upon by applicant's claim to, “characterized in that the locating system is calibrated by self-calibration.” Hence it would have been obvious to one of ordinary skill in the art at the time of invention to modify Sharp by McGee to allow for efficient operation of the robot by having it self calibrate and thus reduce time and increase efficiency.

12. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp in further view of McClure et al. US Patent 5,219,264 (hereafter referenced as McClure).



Regarding claim 43 where all the limitations of claim 42 are disclosed by Sharp who does not specifically disclose the further limitation of, "receiving, at the control computer, an independent signal from an independent proximity sensor located in a tool-holding grip of the arm; measuring the orientation of a tool relative to the tool-holding grip or arm according to the received independent signal; and compensating a position of the tool-holding grip according to the measured orientation."

This is disclosed by McClure in their summary of the invention, where it describes how their invention uses a sensor to determine position and moves the arm based on that information. This is carried out by the computer and the signal is sent to determine how much the arm should move. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to modify Sharp by McClure to have the arm be able to move more accurately for fine detailed work.

### ***Response to Arguments***

13. Applicant's arguments filed 4/13/2010 have been fully considered but they are not persuasive. Where applicant argues, "Sharp uses the global positioning system "°GPS" to control the marking apparatus (see Abstract). As is known, GPS is a coordinate system which can be freely used by anybody (see <http://www.gps.gov/>). In contrast thereto, the method of the present invention does not use GPS or any other publicly available positioning system, but is required to use its own fixed reference system. This results from the additional features of amended claim 21 which are directed to locating (placing) a plurality of transmitters as field sources of at least one physical field which defines the fixed reference system of the invention. Such a feature

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is not disclosed by Sharp, which does not set up its own positioning system, but uses the available GPS system. Amended claim 21 is therefore novel in view of Sharp.”

Applicant currently presented claims do not support this assertion and hence the argument is not persuasive. The use of a public or internal reference frame is moot as applicant does not currently claim this and hence is not persuasive.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BHAVESH V. AMIN whose telephone number is (571)270-3255. The examiner can normally be reached on M - T, Friday off, 7:30am to 6:00pm, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. V. A./

Examiner, Art Unit 3664

/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664